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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,258	03/13/2002	Siani Lynne Pearson	B-4528PCT 619575-6	9281
22879 7590 11/26/2007 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER HENEGHAN, MATTHEW E	
			ART UNIT 2134	PAPER NUMBER
			MAIL DATE 11/26/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/088,258

Applicant(s)

PEARSON ET AL.

Examiner

Matthew Heneghan

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,6-10,15-17 and 19-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,6-10,15-17 and 19-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/14/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 3, 6-10, and 15-17, and 19-30 have been examined.

Information Disclosure Statement

2. The following Information Disclosure Statements in the instant application have been fully considered:

IDS filed 14 August 2007.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 26 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by WIPO Patent Publication No. 98/44402 to Bramhill et al.

Bramhill discloses a server that securely sends data to an authenticated client. This inherently requires the server to have a memory from which an image of the program having this functionality can be executed. The authentication of the token may

involve the use of a token sent to the client to verify that the client has permission and has not been tampered, ensuring that the client restricts use of the data (such as image data, which is displayed at a client) before it is sent (see p. 11, lines 4-17; p. 14, lines 27-29; p. 16, line 20 to p. 17, line 20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,825,879 to Davis in view of U.S. Patent No. 5,517,569 to Clark.

As per claim 25, Davis discloses a client platform having a display and a communications means that is secure by dint of its receiving encrypted data (see column 3, lines 54-61) and an image processing module, the secure video content processor, that stores received images in a frame buffer (memory) and may send its output directly to (i.e. controls) a display device (see column 3, line 62 to column 4, line 17; column 4, lines 49-55; and column 5, lines 47-59). The SVCP is tamper-proofed, protected physically (see column 4, lines 32-48) and logically (protected key loading, see column 3, lines 27-43) from modification. The signal may be received from an on-

line service provider, which inherently employs a server (see column 3, lines 20-26), encrypted with a key for a specific authorized purpose (see column 3, lines 28-43).

Davis does not disclose a mechanism for verifying the integrity of the platform upon user request.

Clark discloses a hardware test in a protected platform in which a user may initiate the verifying of the platform's integrity (see column 5, lines 32-35). One skilled in the art would recognize that it is important for a user to have confidence in the platform that he or she is using.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Davis by implementing it with a user-initiated integrity check, as disclosed by Clark, so that a user may have confidence in the platform that he or she is using.

Regarding claim 8, by authenticating the received data, Davis' client in effect verifies the trusted status of another platform, the server.

5. Claims 3, 6, 9, 15-17, 19-22, 25, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO Patent Publication No. 98/44402 to Bramhill et al. as applied to claim 26 above and further in view of U.S. Patent No. 5,825,879 to Davis further in view of U.S. Patent No. 5,517,569 to Clark.

Regarding claims 25, 28, and 29, Bramhill does not disclose the physical protection of the client from unauthorized modification.

Davis discloses a tamper-proof client, as disclosed above, that receives image data into a frame buffer and displayed. Davis further suggests that by protecting the data over the entire processing flow, an unauthorized copier will find it more difficult to capture the unencrypted digital representation (see column 2, lines 61-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Bramhill by using Davis' tamper-proofing at the client, to make it more difficult to capture the unencrypted digital representation.

Bramhill and Davis do not disclose a mechanism for verifying the integrity of the platform upon user request.

Clark discloses a hardware test in a protected platform in which a user may initiate the verifying of the platform's integrity (see column 5, lines 32-35). One skilled in the art would recognize that it is important for a user to have confidence in the platform that he or she is using.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Bramhill and Davis by implementing it with a user-initiated integrity check, as disclosed by Clark, so that a user may have confidence in the platform that he or she is using.

Regarding claim 3, Bramhill discloses the monitoring of integrity of the client and data flows by comparing current values to initial characteristics (see p. 17, lines 1-20). The integrity of the image may be verified by using a hash (see p. 14, lines 14-19).

Regarding claim 6, 15, and 19, Bramhill discloses that the client (user) initiates data requests (see p. 9, lines 15-29). Though Bramhill does not specifically recite a secure user interface, Davis' modification, which dictates that the transaction must be secure on an end-to-end basis, necessitates a secure user interface to the server from the client as well.

As per claim 9, 17, and 22, Bramhill also discloses the use of a smart card for authentication of the client by the server during a session, which inherently requires a smart card reader (see p. 18, lines 20-25).

Regarding claim 16, different parts of the transaction are being respectively performed at the client and server.

Regarding claim 20, the steps of requesting and receiving transmissions may go on indefinitely.

Regarding claim 21, Bramhill does not disclose the maintaining of usage logs.

Davis discloses the use of metering (usage logs) in such transactions, in order to maintain billing records for transmission to a transaction clearing house (see column 1, lines 60-63).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the invention of Bramhill by using metering, as per Davis, in order to maintain billing records for transmission to a transaction clearing house.

6. Claims 10, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO Patent Publication No. 98/44402 to Bramhill et al. in view of U.S. Patent No. 5,825,879 to Davis further in view of U.S. Patent No. 5,517,569 to Clark as applied to claims 25 and 29 above, and further in view of U.S. Patent No. 5,990,927 to Hendricks et al.

Bramhill, Davis, and Clark do not disclose the insertion of server-provided into data streams.

Hendricks discloses the integration of advertisements (i.e. not requested by the client) into the program signal (see column 9, lines 16-23), and suggests that because of this, local headends (servers) are not constrained to show only programs transmitted from the operations center (see column 7, lines 61-67).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Bramhill, Davis, and Clark by allowing for the insertion of advertisements into data streams, as disclosed by Hendricks, so that local headends are not constrained to show only programs transmitted from the operations center.

7. Claims 7 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO Patent Publication No. 98/44402 to Bramhill et al. in view of U.S. Patent No. 5,825,879 to Davis further in view of U.S. Patent No. 5,517,569 to Clark as applied to claims 25 and 26 above, and further in view of U.S. Patent No. 6,219,788 to Flavin et al.

Bramhill, Davis, and Clark do not disclose the authentication of a protected server-trusted component by a client.

Flavin discloses a computer watchdog system wherein tamper protection may be incorporated at either the server or client in a content distribution system, monitoring other systems, in order to ensure just execution of agreements between a producer and distributor of the content (see abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Bramhill, Davis, and Clark by using Flavin's watchdog system, in order to ensure just execution of agreements between a producer and distributor of the content.

8. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO Patent Publication No. 98/44402 to Bramhill et al. as applied to claim 26 above and further in view of U.S. Patent No. 5,825,879 to Davis further in view of U.S. Patent No. 5,355,414 to Hale et al.

Regarding claims 25, 28, and 29, Bramhill does not disclose the physical protection of the client from unauthorized modification.

Davis discloses a tamper-proof client, as disclosed above, that receives image data into a frame buffer and displayed. Davis further suggests that by protecting the data over the entire processing flow, an unauthorized copier will find it more difficult to capture the unencrypted digital representation (see column 2, lines 61-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Bramhill by using Davis' tamper-proofing at the client, to make it more difficult to capture the unencrypted digital representation.

Bramhill and Davis do not disclose a locking of a user interface.

Hale discloses a security system in which the user interface may be blanked (locked) (see column 13, lines 16-19), so that, in an insecure situation, information visible on the display is not viewable (see column 3, lines 27-33).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Bramhill and Davis by allowing for a locking display, as disclosed by Hale, so that insecure information on a display is not viewable.

Response to Arguments

9. Regarding Applicant's argument over claim 26 et al., Applicant's arguments filed 14 September 2007 have been fully considered but they are not persuasive. In the examination of a patent application, the meanings of claim terms are given their broadest reasonable interpretation in light of Applicant's specification. See *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000), *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-17 (Fed. Cir. 2005) (en banc). It has been previously noted (see

Non-Final Rejection, mailed 19 June 2007) that though the client disclosed by Bramhill is not as well-protected as that of the instant application, it nonetheless constitutes a trusted component insofar as the term is defined in the instant application's specification. Bramhill does disclose the authentication of the platform, thus establishing a level of trust about the client platform. That the client is programmed in Java is irrelevant. The security of a programming-language is implementation-dependent, and programming languages are not inherently insecure by themselves. Applicant has not specifically pointed what, if any, language in Applicant's specification would give the term a meaning that would preclude the interpretation used for "trusted component" herein.

Regarding Applicant's argument that Bramhill only discloses a program, Bramhill discloses a program that is installed on an authenticated client (see p. 11, lines 4-5, for example); the client and program must be considered together and do anticipate Applicant's invention as claimed. The fact that Bramhill discloses authentication for the reasons concerning payment collection does not mean that the client running the program is not a "trusted component."

Regarding Applicant's argument that the display is not being controlled from within the trusted component, Bramhill's disclosure clearly shows that the images being displayed are being controlled by software in the authenticated client to display received non-functional descriptive material or, alternatively, error messages (see p. 14, lines 21-29).

Regarding Applicant's argument that Bramhill's invention does not check for tampering, that property is not explicitly claimed, and is not inherently necessary for a component to be "trusted."

10. Regarding Applicant's argument over claim 25 et al., Applicant's arguments filed 14 September 2007 have been fully considered but they are not persuasive.

Davis' invention clearly includes protection against the use of unauthorized keys, including the encrypting of decryption keys, which one skilled in the art would recognize as potentially frustrating an attempt to misuse the system. It therefore enjoys some protection from unauthorized modification.

Regarding Applicant's argument that one skilled in the art would not be motivated to incorporate Clark's teachings into the invention of Davis, it is noted that, when there is a desire to make a system secure, it is reasonable for one skilled in the art to add additional layers of security to an invention. Though headend systems are typically installed in home environments, they can also be found in more secure locations. "Users" in a deployment may just be the customers themselves (who themselves may have reasons for having an untampered system), but also technicians from the service provider.

Regarding Applicant's argument that only one of many functionalities is being imported from Clark into Davis' invention, there is no reason why one skilled in the art would not wish to incorporate additional features; however, those issues need not be addressed because they are not part of the claimed invention. Both of the references

are to secure computing systems and are sufficiently analogous that one skilled in the art would find it advantageous to combine them.

Regarding Applicant's argument that the authentication of data does not verify the trusted status of a source, it is noted that since data from a bad source would fail the authentication check, a successful authentication affirms that a source is, at least to some extent, trustworthy.

11. Regarding Applicant's argument over claim 3 et al., Applicant's arguments filed 14 September 2007 have been fully considered but they are not persuasive.

Regarding Applicant's argument that one skilled in the art would not be motivated to modify Bramhill's invention using Davis and Clark, Bramhill does not give specifics as to what kind of display should be used. Davis and Clark's invention is a display controller, and can therefore easily be combined into Bramhill to fulfill that role. Since each invention contributes attributes that make the whole system more secure, it would be obvious to combine them all in order to enjoy greater overall security.

12. Regarding Applicant's argument over claim 30, Applicant's arguments filed 14 September 2007 have been fully considered but they are not persuasive.

Regarding Applicant's argument that the display is deactivated, rather than the user interface, since the user interface is dependent upon the display, the loss of the display renders the user interface useless, thus effectively locking it. Since Hale's modification provides further protection from misuse over and above that provided in the

other references, one skilled in the art would reasonably be motivated to incorporate it in order to further enhance security.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Heneghan, whose telephone number is (571) 272-3834. The examiner can normally be reached on Monday-Friday from 8:30 AM - 4:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand, can be reached at (571) 272-3811.

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Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Or faxed to:


(571) 273-3800

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/MH/

November 20, 2007


KAMBIZ ZAND
SUPERVISORY PATENT EXAMINER